

REMARKS

Claims 1-6 currently appear in this application. The Office Action of April 18, 2007, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Specification

The specification is objected to for a number of informalities.

The present amendment corrects these informalities. Additionally, the following clarifications to the specification should be made:

**a) clarification to paragraph [0025], page 12**

The inventors have considered that the device for selecting of probing and/or analyzable luminescent radiation, as well as the device for focusing light beams, are conventional, and are widely known from spectral analysis practice and therefore do not require any special explanation.

The practical description of these devices is given in the same sequence as the Examiner's queries:

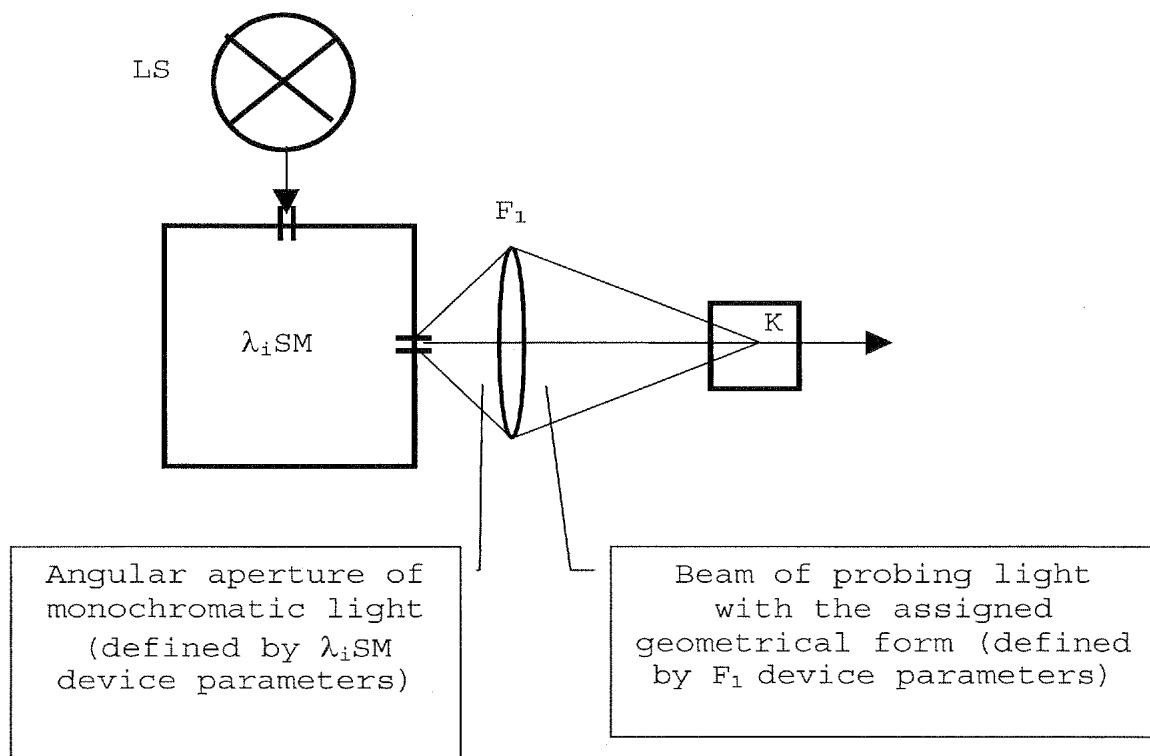
A device for extracting the luminescence wavelengths (or the Raman scattering) and the monochromatic probing radiation is a classic monochrmator, a set of optical filters and/or other devices that pick the required spectral sections of the radiation that is being analyzed.

A device for probing ray focusing can be an optic lens, a set of lenses, or any other optical device generating light beams of a desired shape.

**b) clarification to paragraph [0028], page 14**

The term "monochromatic light" refers to light with a strictly determined wavelength. However, in reality, any source of monochromatic radiation, even a laser, emits a band of final spectral width  $\lambda_i$ , while the term "monochromatic light" practically characterizes the peak intensity position of such band,  $\lambda_i$ . Within the context of the given statement, the spectral width of the assigned sections of monochromatic light implicates the width of hardware function of the device for selecting monochromatic probing radiation ( $\lambda_iSM$  on Figure 3).

An optical scheme that explains the procedure of light beam focusing (transformation) onto (into) a beam of a specific geometric shape is shown on Figure 1e, attached hereto.



The procedure for measuring, as well as sample parameters correlating with a known mixture K and an unknown mixture U are extensively described in Example 5, paragraphs [0055]-[0065] on pages 25-28 of the specification as filed.

**c) Clarifications to paragraph [0046] on page 21**

Paragraph [0046] actually defines the need to use the monochromatic line of a narrow-band light source. Methods for obtaining or selecting such lines are widely known from the prior art, i.e., prior spectral analysis practice. Therefore, the inventors believe that it is not necessary to describe this process in detail, as it is conventional.

The Examiner perfectly conceives such procedure as well as practical methods for obtaining and/or selecting monochromatic lines.

Rejections under 35 U.S.C. 112

Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement and for failing to comply with the written description requirement.

These rejections are respectfully traversed. It is respectfully submitted that the steps of claims 1-6 can enable one skilled in the art to produce the invention based upon the Detailed Description of the Invention and using the examples and illustrations available therein.

The expression "assaying multi-component mixtures" does not mean, as the Examiner appears to perceive it, the exclusive quantitative and qualitative finding of each component of the multi-component mixture. This expression may also mean comparison of a given mixture with some other mixture, even of an unknown compound, that would have a set of specific properties. This is similar to organoleptic testing: when saying "bitter" or "sweet", we trust our gustatory sensations, without being concerned with how many components of the analyzed mixture define such sensations. The method is equally suitable for any aggregative state of multi-component

mixtures of substances. The method equally makes it possible to authenticate multi-component mixtures of an unknown compound. Amending claims 1 and 2 as suggested by the Examiner makes the claims prohibitively narrow.

With respect to the detailed disclosure of steps in claim 1, the step of "dividing the light into spectral components, and/or extracting the assigned sections of monochromatic light", as well as the step of "focusing the extracted monochromatic light onto a probing beam having a specified geometric shape" and decomposing the luminescent light into individual spectral sections (step e) are well known from the prior art and are conventional procedures. These procedures are described in the standard literature, some of which is cited in paragraph [0022] on pages 11-12 of the specification.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

The claims have been amended to better define the invention, including making the amendments suggested by the Examiner.

The method steps of claim 3 follow the method step g of claim 1.

A sample can be irradiated with a monochromatic light at several frequencies using several sources of such radiation (e.g., lasers generating different wavelengths) or one narrow-band source, providing the option of the radiation wavelength tuning within a certain spectral band. These sources are well known from the prior art.

Claim 5 has been amended to clarify that the properties of the solvents relate to both the sample of the mixture under analysis and the standard mixture.

It is noted that the prior art made of record and not relied upon is considered to be merely pertinent to applicant's disclosure.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

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Respectfully submitted,

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